

Grade K

Mathematics

Item Specifications



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Introduction

In 2014 Missouri legislators passed House Bill 1490, mandating the development of the Missouri Learning Expectations. In April of 2016, these Missouri Learning Expectations were adopted by the State Board of Education. Groups of Missouri educators from across the state collaborated to create the documents necessary to support the implementation of these expectations.

One of the documents developed is the item specification document, which includes all Missouri grade level/course expectations arranged by domains/strands. It defines what could be measured on a variety of assessments. The document serves as the foundation of the assessment development process.

Although teachers may use this document to provide clarity to the expectations, these specifications are intended for summative, benchmark, and large-scale assessment purposes.

Components of the item specifications include:

Expectation Unwrapped breaks down a list of clearly delineated content and skills the students are expected to know and be able to do upon mastery of the Expectation.

Depth of Knowledge (DOK) Ceiling indicates the highest level of cognitive complexity that would typically be assessed on a large scale assessment. The DOK ceiling is not intended to limit the complexity one might reach in classroom instruction.

Item Format indicates the types of items used in large scale assessment. For each expectation, the item format specifies the type best suited for that particular expectation.

Text Types suggests a broad list of text types for both literary and informational expectations. This list is not intended to be all inclusive: other text types may be used in the classroom setting. The expectations were written in grade level bands; for this reason, the progression of the expectations relies upon increasing levels of quantitative and qualitative text complexities.

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Content Limits/Assessment Boundaries are parameters that item writers should consider when developing a large scale assessment. For example, some expectations should not be assessed on a large scale assessment but are better suited for local assessment.

Sample stems are examples that address the specific elements of each expectation and address varying DOK levels. The sample stems provided in this document are in no way intended to limit the depth and breadth of possible item stems. The expectation should be assessed in a variety of ways.

Grade Kindergarten Mathematics

Frequently asked questions for Item Specification and Sample Stems

1. What is the purpose of the Item Specification document?

Historically, Item Specification documents are written for test item writers. In Missouri, this document was seen as a resource for not only item writers, but teachers as well. The unwrapped section should provide more detail on the meaning of the standard and the sample stems should provide example items that also help clarify the standard. In this update, the language used in the Expanded Expectations document was included to merge the two documents for easier access. In some standards a “Notes” section was added to provide additional information.

2. Why do some unwrapped sections have the same few sentences at the beginning?

For standards that have multiple parts and are listed as sub expectations, e.g., NF.C.5.b, the first part highlights the intent of that standard series. Often, these standards should be taught together as they develop a bigger idea or concept.

3. Why is the Fluency definition only on some standards?

Certainly, students having experience using different strategies and picking the strategy they feel best for given situations is important to improving student knowledge in mathematics. The Missouri Educators working on the document felt it important to highlight areas where student access to multiple strategies would provide the greatest support. Listing fluency in all standards would likely lessen the impact needed.

4. What does the “e.g.” mean when listed in the unwrapped section?

The “e.g.” is a way to highlight a list of examples, ideas, or concepts. It is **not** an exhaustive list, nor is it intended to represent the best examples. It is merely a partial list to provide some examples.

5. What does “with or without context” mean?

This phrase was used to highlight that the math problems might have some situational context or could possibly be a strictly number or symbol situation. The Educators working on this update wanted the focus to be on using math to solve problem situations rather than a focus on “real world” problems.

6. Are the Sample Stems examples of summative test items?

The Sample Stems could be a classroom item or possibly an assessment item. In some cases, the problem used would have to be adjusted to use on a Statewide assessment. The goal was to give students and teachers a problem that aligns to the standard. The Stems provided in the document are an example. The educators assisting with the update in some cases created more than one example and those are listed at the bottom of the document. All examples are good, some fit better on the page within the Item Specification which have determined those shown in both places.

7. Why are there no answers listed with the Sample Stems?

The focus of the Sample Stems should be on the work students can demonstrate to indicate their level of understanding for the given standard. While the answer is one component, when given, it frequently becomes the focus which does not provide important information in the learning process.

8. What does “No Limits” mean in the Limits and Boundaries section?

Where there are no limits or boundaries to be listed, “No Limits” was used to indicate this situation and help those using the document understand that it wasn’t an oversight. IMPORTANT NOTE: if the standard itself or the cluster heading lists a specific limit, e.g., specific denominators, size or type of number, that was not duplicated in the Limits section.

9. Why do some words show a short definition?

While this does not serve as a replacement for a glossary, there were terms within the unwrapping that the committee felt should have meaning included. This occurs in the standard where it specifically addresses the concept in the standard, e.g., cardinality, trapezoid.

10. Why are Kindergarten and Grade 1 Sample Stems a bit different?

Students in Kindergarten and Grade 1 are beginning readers, so teachers should expect to read problems to the students rather than only providing problems to be solved.

Grade Kindergarten Mathematics

Mathematics		K.NS.A.1
NS	Number Sense	
A	Know the number names and the count sequence	
1	Count to 100 by ones and tens.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will count verbally to one hundred by ones (starting at one) and tens (starting at ten). Rote counting is an initial step to understanding the base-ten number system.</p>		<p><u>Sample Stems</u></p> <p>Start counting from 1 and count as far as you can.</p> <p>Count by tens to 100 starting at 10.</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling: 1</u>		
<u>Item Format:</u>		

Grade Kindergarten Mathematics

Mathematics		K.NS.A.2
NS	Number Sense	
A	Know the number names and the count sequence	
2	Count forward beginning from a given number between 1 and 20.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will verbally count on by ones within 20, starting from any given number.</p> <p>Note: The student needs to develop an understanding of the sequence of numbers regardless of the starting value.</p>		<p><u>Sample Stems</u></p> <p>Start counting at 12 (for example) and count until I tell you to stop.</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling: 2</u>		
<u>Item Format:</u>		

Grade Kindergarten Mathematics

Mathematics		K.NS.A.3
NS	Number Sense	
A	Know the number names and the count sequence	
3	Count backward from a given number between 10 and 1.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will count backward by ones from a given number between ten and one.</p>		<p><u>Sample Stems</u></p> <p>Count backwards starting at 8 and stopping at 3.</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling: 2</u>		
<u>Item Format:</u>		

Grade Kindergarten Mathematics

Mathematics		K.NS.A.4
NS	Number Sense	
A	Know the number names and the count sequence	
4	Read and write numerals and represent a number of objects from 0 to 20.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will read and write numerals from zero to twenty, and represent a number of objects with a written numeral from zero to twenty (with zero representing a count of no objects). The student is not expected to read number words, e.g., “four”.</p> <p>Numeral refers to the written symbol used to name a number. Number is a mathematical idea concerning the amount contained in a set (cardinality).</p>		<p><u>Sample Stems</u></p> <p>What is the number name for the numeral below?</p> <p style="text-align: center;">19</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling: 2</u>		
<u>Item Format:</u>		

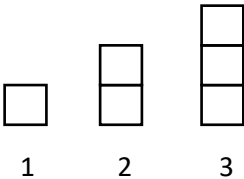
Grade Kindergarten Mathematics

Mathematics		K.NS.B.5
NS	Number Sense	PRIORITY STANDARD
B	Understand the relationship between numbers and quantities: connect counting to cardinality.	
5	Say the number names when counting objects, in the standard order, pairing each object with one and only one number name and each number name with one and only one object.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will demonstrate a one-to-one correspondence when counting objects. The student will say the number names in sequence, keeping one-to-one correspondence between counting words and objects (one number word for each object). The student will stop when they have counted all objects.</p> <p>Note: The focus of this standard is to connect rote counting to cardinality (the last number name said in counting tells the number of objects counted). The use of manipulatives is vital to developing this understanding.</p>		<p><u>Sample Stems</u></p> <p>Count aloud the objects in the tray.</p> <p>Teacher action: Provide the student with a tray containing an unknown number of objects. Ask the student to count the objects aloud. Observe the student to see if they can match the number name with the object being counted in sequential order.</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>Limit sets to no more than 20 objects. The objects do not need to be placed in an arranged order.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling: 2</u>		
<u>Item Format:</u>		

Grade Kindergarten Mathematics

Mathematics		K.NS.B.6
NS B 6	Number Sense Understand the relationship between numbers and quantities: connect counting to cardinality. Demonstrate that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted.	
<u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u> The student will demonstrate that rearranging a known number of objects does not affect the number in the set, which is also known as number conservation. Note: The use of manipulatives is vital to developing this understanding.		<u>Sample Stems</u> How many objects are on the tray? Teacher action: Provide the student with a tray containing an unknown number of objects. Ask the student to count the objects, then share the total number from their tray. <

Grade Kindergarten Mathematics

Mathematics		K.NS.B.7
NS	Number Sense	
B	Understand the relationship between numbers and quantities: connect counting to cardinality.	
7	Demonstrate that each successive number name refers to a quantity that is one larger than the previous number.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will demonstrate that each successive number name refers to a quantity that is one more than the previous number.</p> <p>Students should be able to do this visually and verbally using different representations, e.g., sets of objects, counters, five or ten frames, number paths.</p> <p>Note: The focus in kindergarten is to understand the quantities and relationships of numbers one through twenty.</p>		<p><u>Sample Stems</u></p> <p>Build towers of blocks from 1 to 20 by following this pattern and place a number card under each tower.</p>  <p>Possible questions for students: What do you notice? What do you wonder? How do the towers change? As you add a block, what happens? Why?</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
DOK Ceiling: 2		
Item Format: Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.NS.B.8
NS	Number Sense	PRIORITY STANDARD
B	Understand the relationship between numbers and quantities: connect counting to cardinality.	
8	Recognize, without counting, the quantity of groups up to 5 objects arranged in common patterns.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will subitize a quantity of up to and including five objects. Subitizing occurs when students recognize the quantity of objects in a group, without counting, when arranged in common patterns, e.g., dice, dominoes, playing cards, five frames, ten frames, dot cards.</p> <p>Mathematical Fluency is more than a quick answer on some timed test. Students demonstrate Fluency when they do mathematics using an <u>appropriate strategy</u> in a reasonable amount of time, <u>knowing multiple processes</u> and can apply or adapt strategies to find a correct solution.</p> <p>The student will identify and describe multiple strategies to solve problems with or without context involving recognizing the quantity of objects arranged in common patterns.</p>		<p><u>Sample Stems</u></p> <p>How many dots are in this 5 frame?</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 2px; text-align: center; line-height: 20px;">●</div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 2px; text-align: center; line-height: 20px;">●</div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 2px; text-align: center; line-height: 20px;">●</div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling: 1</u>		
<u>Item Format</u>		

Grade Kindergarten Mathematics

Mathematics		K.NS.B.9
NS	Number Sense	PRIORITY STANDARD
B	Understand the relationship between numbers and quantities: connect counting to cardinality.	
9	Demonstrate that a number can be used to represent “how many” are in a set.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will count how many are in a set of twenty or fewer objects. The student will represent the actual count of the set using a number.</p>		<p><u>Sample Stems</u></p> <p>How many items are in this set?</p> <p>Teacher action: provide student, or groups of students, with a set of objects (20 or fewer), to count and verbally indicate the number of objects.</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling: 2</u>		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.NS.C.10
NS C 10	Number Sense Compare Numbers Compare two or more sets of objects and identify which set is equal to, more than or less than the other.	PRIORITY STANDARD
<u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u> The student will compare two or more sets, with no more than ten objects in each group. The student will identify which set is equal to, more/greater than, or fewer/less than the others. Note: The focus is on understanding the relationship among the quantity of objects; therefore, the use of comparison symbols, e.g., =, < or >, is not appropriate. Mathematical Fluency is more than a quick answer on some timed test. Students demonstrate Fluency when they do mathematics using an appropriate strategy in a reasonable amount of time, knowing multiple processes and can apply or adapt strategies to find a correct solution. The student will use and explain multiple strategies to solve problems with or without context involving comparing two or more sets of objects.		<u>Sample Stems</u> Compare the two sets and decide which set has the most objects. Be ready to explain your answer. Teacher action: provide student, or groups of students if working in pairs, with two sets of objects, to count and verbally indicate which set has the greater number of objects. Additional Stems for Kindergarten Found at End of Document.
<u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u> No Limits.		<u>Calculator Designation</u> NO – a calculator will not be available for items
<u>DOK Ceiling:</u> 3		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

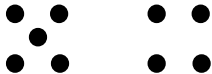
Grade Kindergarten Mathematics

Mathematics		K.NS.C.11
NS	Number Sense	
C	Compare Numbers	
11	Compare two numerals, between 1 and 10, and determine which is more than or less than the other.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will use their knowledge of quantity to compare two different numerals, each within 10, to determine which is more than or less than the other.</p> <p>Note: The focus is on connecting the numeral as a representation of the number of objects; therefore, the use of comparison symbols is not appropriate.</p> <p>Numeral refers to the written symbol used to name a number. Number is a mathematical idea concerning the amount contained in a set.</p> <p>Mathematical Fluency is more than a quick answer on some timed test. Students demonstrate Fluency when they do mathematics using an appropriate strategy in a reasonable amount of time, knowing multiple processes and can apply or adapt strategies to find a correct solution.</p> <p>The student will use and explain multiple strategies to solve problems with or without context involving comparing two numerals.</p>		<p><u>Sample Stems</u></p> <p>Look at the numbers below. Identify the number that is more than the other.</p> <p style="text-align: center;">8 3</p> <p>Look at the numbers below. Identify the number that is less than the other.</p> <p style="text-align: center;">6 9</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 3		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.NBT.A.1
NBT	Number Sense and Operations in Base Ten	PRIORITY STANDARD
A	Work with numbers 11-19 to gain foundations for place value.	
1	Compose and decompose numbers from 11 to 19 into sets of tens with additional ones.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will compose and decompose numbers from 11 to 19 into sets of tens with additional ones. Separate ten ones from the remaining ones, using manipulatives or drawings.</p> <p>The student will demonstrate (verbally and symbolically) an understanding that the numbers from eleven to nineteen are composed of a group of ten and additional one(s). Compose and decompose numbers from 11 to 19 into sets of tens with additional ones (separating ten ones from the remaining ones) by using objects or drawings. Understand that these numbers are composed of one group of ten and one, two, three, four, five, six, seven, eight or nine ones.</p> <p>Note: Unitizing is the understanding that numbers can be arranged in groups and groups can be counted as units.</p> <p>Mathematical Fluency is more than a quick answer on some timed test. Students demonstrate Fluency when they do mathematics using an <u>appropriate strategy</u> in a reasonable amount of time, <u>knowing multiple processes</u> and can apply or adapt strategies to find a correct solution.</p> <p>The student will use and explain multiple strategies to solve problems with or without context involving composing and decomposing numbers from 11 to 19.</p>		<p><u>Sample Stems</u></p> <p>How many tens and ones are in the number 13?</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 3		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.RA.A.1
RA	Relationships and Algebraic Thinking	PRIORITY STANDARD
A	Understand addition as putting together or adding to, and understand subtraction as taking apart or taking from.	
1	Represent addition and subtraction within 10.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will use a variety of strategies to represent sums and differences within ten, e.g., objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, or expressions.</p> <p>Note: No single strategy is recommended over another. Consider the needs of the student.</p> <p>Mathematical Fluency is more than a quick answer on some timed test. Students demonstrate Fluency when they do mathematics using an appropriate strategy in a reasonable amount of time, knowing multiple processes and can apply or adapt strategies to find a correct solution.</p> <p>The student will use and explain multiple strategies to solve problems with or without context involving representing addition and subtraction within 10.</p>		<p><u>Sample Stems</u></p> <p>Kaleb is trying to represent two numbers that add to 9. He used counters to make his example.</p>  <p>What are other ways to represent 9? You can use five frames, drawings, or other ways to show a different representation.</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 2		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.RA.A.2
RA	Relationships and Algebraic Thinking	PRIORITY STANDARD
A	Understand addition as putting together or adding to, and understand subtraction as taking apart or taking from.	
2	Demonstrate fluency for addition and subtraction within 5.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will demonstrate fluency for addition and subtraction within five using strategies such as: count all, counting on, counting back, or other strategies. Strategies should be supported using manipulatives, e.g., five frames, rekenreks.</p> <p>Note: The use of manipulatives is vital to understanding.</p> <p>Mathematical Fluency is more than a quick answer on some timed test. Students demonstrate Fluency when they do mathematics using an <u>appropriate strategy</u> in a reasonable amount of time, <u>knowing multiple processes</u> and can apply or adapt strategies to find a correct solution.</p> <p>The student will use and explain multiple strategies to solve problems with or without context involving demonstrating fluency for addition and subtraction within 5.</p>		<p><u>Sample Stems</u></p> <p>In pairs, you will each draw two cards from your stack. The person with the highest sum wins that round.</p> <p>Teacher action: provide each student with a set of numeral cards with each student beginning with the same number of cards. Have each student place their cards in a pile, face-down in front of them.</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 3		
<u>Item Format:</u>		


Grade Kindergarten Mathematics

Mathematics		K.RA.A.3
RA	Relationships and Algebraic Thinking	PRIORITY STANDARD
A	Understand addition as putting together or adding to, and understand subtraction as taking apart or taking from.	
3	Decompose numbers less than or equal to 10 in more than one way.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will decompose (compose) numbers within ten using methods, e.g., manipulatives, drawings, rekenreks, number paths, and record each result using a drawing or expression.</p> <p>Mathematical Fluency is more than a quick answer on some timed test. Students demonstrate Fluency when they do mathematics using an <u>appropriate strategy</u> in a reasonable amount of time, <u>knowing multiple processes</u> and can apply or adapt strategies to find a correct solution.</p> <p>The student will use and explain multiple strategies to solve problems with or without context involving decomposing numbers less than or equal to 10.</p>		<p><u>Sample Stems</u></p> <p>I have 10 Skittles. How many could each of my two friends get?</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 3		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		


Grade Kindergarten Mathematics

Mathematics		K.RA.A.4
RA	Relationships and Algebraic Thinking	PRIORITY STANDARD
A	Understand addition as putting together or adding to, and understand subtraction as taking apart or taking from.	
4	Make 10 for any number from 1 to 9.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will, given a number from 1 to 9, determine the missing number needed to make a 10. The student will support their work through various strategies, e.g. mental math to make 10, drawing, expression, using manipulatives, e.g., ten frames, rekenreks.</p> <p>Mathematical Fluency is more than a quick answer on some timed test. Students demonstrate Fluency when they do mathematics using an <u>appropriate strategy</u> in a reasonable amount of time, <u>knowing multiple processes</u> and can apply or adapt strategies to find a correct solution.</p> <p>The student will use and explain multiple strategies to solve problems with or without context involving creating 10 using any number from 1 to 9.</p>		<p><u>Sample Stems</u></p> <p>A pack of gum has ten pieces of gum when it is full. Ramon's pack has 6 pieces. How many are missing?</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 3		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.GM.A.1
GM	Geometry and Measurement	
A	Reason with shapes and their attributes.	
1	Describe several measurable attributes of objects.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will describe several measurable attributes of an object, using appropriate language, e.g., length, weight, height, or capacity.</p> <p>Note: The use of manipulatives is vital to understanding.</p>		<p><u>Sample Stems</u></p> <p>What do you notice about the shape? How many sides does it have? How many corners (angles) do you notice?</p>  <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling: 1</u>		
<u>Item Format:</u>		

Grade Kindergarten Mathematics

Mathematics		K.GM.A.2
GM	Geometry and Measurement	PRIORITY STANDARD
A	Reason with shapes and their attributes.	
2	Compare the measurable attributes of two objects.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will compare the measurable attributes of two objects, using appropriate language, e.g., longer, taller, shorter, same length, heavier, lighter, same weight, holds more, holds less, holds the same amount, etc.</p> <p>Note: The use of manipulatives is vital to understanding.</p>		<p><u>Sample Stems</u></p> <p>What do you notice about the two shapes drawn below?</p> <div style="text-align: center;">  </div> <p>Teacher actions: other possible questions to ask include, what is alike; what is different; do the shapes have the same number of sides; do the shapes have the same number of angles.</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 3		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.GM.B.3
GM	Geometry and Measurement	
B	Work with time and money.	
3	Demonstrate an understanding of concepts of time and devices that measure time.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will demonstrate an understanding of the concepts of time, e.g., morning, afternoon, night, today, yesterday, tomorrow, week, month, and year. The student will demonstrate an understanding of tools that measure time, e.g., analog clock, digital clock, and calendar.</p>		<p><u>Sample Stems</u></p> <p>How do we tell time? What tools do we use to find out what time it is?</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>The student is not expected to tell time.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 2		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.GM.B.4
GM	Geometry and Measurement	
B	Work with time and money.	
4	Name the days of the week.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will verbally name the days of the week by rote and/or by cueing from a calendar.</p>		<p><u>Sample Stems</u></p> <p>What is today? What is tomorrow? Do you remember what day it was yesterday?</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 1		
<u>Item Format:</u>		


Grade Kindergarten Mathematics

[illegible]


Grade Kindergarten Mathematics

Mathematics		K.GM.C.6
GM	Geometry and Measurement	PRIORITY STANDARD
C	Analyze squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres.	
6	Identify shapes and describe objects in the environment using names of shapes, recognizing the name stays the same regardless of orientation or size.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will identify shapes two-dimensional shapes and three-dimensional objects in their environment using the correct mathematical vocabulary. The student will recognize that the name stays the same regardless of orientation or size.</p> <p>Note: The use of manipulatives is vital to understanding.</p>		<p><u>Sample Stems</u></p> <p>Find a triangle in the classroom.</p> <p>Teacher actions: use other shapes, e.g., a rectangle, point to a circle, play "I spy a (name a shape)" and encourage students to find it. How many can they locate?</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limit</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 2		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		


Grade Kindergarten Mathematics

Mathematics		K.GM.C.7
GM	Geometry and Measurement	
C	Analyze squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres.	
7	Describe the relative positions of objects in space.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will describe the relative positions of objects in space using terms such as above, below, besides, in front of, behind, and next to.</p> <p>Note: The use of manipulatives is vital to understanding.</p>		<p><u>Sample Stems</u></p> <p>Use the design below and put an x under the design.</p> <div style="text-align: center;">  </div> <p>Teacher actions: provide students with a simple design or this design to place an x under the design. Other options for students to do include putting a circle over the design, draw a check mark on top of, over, under, beside, next to, on, over.</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 2		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.GM.C.8
GM	Geometry and Measurement	PRIORITY STANDARD
C	Analyze squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres.	
8	Identify and describe the attribute of shapes, and use the attributes to sort a collection of shapes.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>Students will identify and describe the attributes of two-dimensional and three-dimensional shapes. The student will use the attributes to sort a collection of shapes.</p>		<p><u>Sample Stems</u></p> <p>Sort these shapes into those with 3 corners and those with more than 3 corners.</p>  <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
DOK Ceiling: 2		
Item Format: Selected Response, Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.GM.C.9
GM	Geometry and Measurement	PRIORITY STANDARD
C	Analyze squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres.	
9	Draw or model simple two-dimensional shapes.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will draw or model, e.g., using modeling clay, cut-outs, pipe cleaners, to create simple two-dimensional shapes.</p>		<p><u>Sample Stems</u></p> <p>Draw this shape.</p>  <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 3		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.GM.C.10
GM C 10	Geometry and Measurement Analyze squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres. Compose simple shapes to form larger shapes using manipulatives.	PRIORITY STANDARD
<u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u> <p>The student will combine two-dimensional shapes to compose larger shapes, e.g., joining two triangles to make a rectangle, three squares to make a rectangle.</p> <p>Note: The use of manipulatives is vital to understanding.</p>		<u>Sample Stems</u> <p>Using pattern blocks, how many ways can you put these two triangles together to form a new shape?</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u> No Limits.		<u>Calculator Designation</u> NO – a calculator will not be available for items
DOK Ceiling: 3		
Item Format: Selected Response, Constructed Response, Technology Enhanced		

Grade Kindergarten Mathematics

Mathematics		K.DS.A.1
DS	Data and Statistics	
A	Classify objects and count the number of objects in each category.	
1	Classify objects into given categories; count the number of objects in each category.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will sort objects into two or three categories, explain the classification, and count the number of objects in each category.</p> <p>Note: The use of manipulatives is vital to understanding.</p>		<p><u>Sample Stems</u></p> <p>Put the given set of objects into like categories. How many objects are in each category?</p> <p>Teacher action: provide students with a set of objects like attribute blocks, buttons, or leaves for student use.</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 3		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

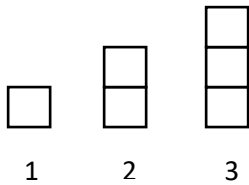

Grade Kindergarten Mathematics

Mathematics		K.DS.A.2
DS	Data and Statistics	PRIORITY STANDARD
A	Classify objects and count the number of objects in each category.	
2	Compare category counts using appropriate language.	
<p><u>Expectation Unwrapped – the intent of this section is to describe the elements of the expectation, but are NOT additional standards or expectations.</u></p> <p>The student will compare category counts based on a set or group of objects using developmentally appropriate language, e.g., greater than, most, more than, less than, fewer than, equal to, same as.</p> <p>Note: The use of manipulatives is vital to understanding.</p> <p>The focus is on comparing the quantity of objects; therefore, the use of comparison symbols, e.g., =, < or >, is not appropriate.</p>		<p><u>Sample Stems</u></p> <p>Using your two categories from before, how many more red shapes do you have than blue shapes?</p> <p>Teacher action: adjust question to match or fit the given object sets you provide students.</p> <p>Additional Stems for Kindergarten Found at End of Document.</p>
<p><u>Suggested Local Assessment Content Limits/Boundaries- Classroom Work Should Extend Beyond These Limits</u></p> <p>No Limits.</p>		<p><u>Calculator Designation</u></p> <p>NO – a calculator will not be available for items</p>
<u>DOK Ceiling:</u> 3		
<u>Item Format:</u> Selected Response, Constructed Response, Technology Enhanced		

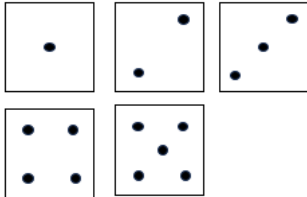
Grade Kindergarten Mathematics

Code	Sample Stem	Explanation
K.NS.A.1	Start counting from 1 and count as far as you can.	Students should not have access to visuals (number line/number path, hundreds chart while counting). Makes decade transitions (e.g., from 29 to 30).
	Count by tens to 100 starting at 10.	
K.NS.A.2	Start counting at 12 (for example) and count until I tell you to stop.	The teen numbers are difficult for younger students so having them count orally through the teens will ensure they are getting all the numbers. For students experiencing difficulty, provide a number path with the numbers included that they can touch as they count. An enlarged ruler also can provide support as they learn these numbers. Suggest to not go above 20 in kindergarten.
	Counts forward from 7 to 17.	Students could be directed to count verbally or by removing objects from a group.
K.NS.A.3	I'm going to say a number. I want you to count backward from the number until I say stop. (8, stop at 3), (6, stop at 2) (5, stop at 1), etc.	Students should not have access to visuals (number line/number path, hundreds chart while counting)
	Count backwards starting at 8 and stopping at 3.	
K.NS.A.4	What is the number name for the numeral below? 19	When shown a number, student can say the number name. When hearing a number name, student can write the number.
	Using the blocks provided, show 13 blocks. Teacher action: provide students with up to 20 blocks (or available manipulative/object).	When hearing a number name or reading a number name, the student can represent the quantity with objects.
K.NS.B.5	Count aloud the objects in the tray. Teacher action: Provide the student with a tray containing an unknown number of objects. Ask the student to count the objects aloud. Observe the student to see if they can match the number name with the object being counted in sequential order.	Provide each student with a different set of manipulatives. Observe how they count their set. Do they touch each object one at a time as they count? Do they move each one to make a line or group? Do they repeat a number? For example, do they count 1...2...3...1...2? Does their finger bounce between the objects so their count isn't accurate? It is important to have students work on this one at a time as the information you gather will be important.


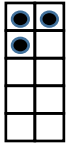
Grade Kindergarten Mathematics

Code	Sample Stem	Explanation
K.NS.B.6	<p>How many objects are on the tray?</p> <p>Teacher action: Provide the student with a tray containing an unknown number of objects. Ask the student to count the objects, then share the total number from their tray.</p>	<p>If the student needs to recount the objects before answering your question, that is a red flag. Try the Stem again. If they successfully answer your question, move them around - spread them out or move them into a much smaller group. Ask them how many there are now? Do they recognize that the number hasn't changed, just the arrangement? Do they need to recount? This activity demonstrates conservation of number -- the idea that the number of objects doesn't change just because they are moved around. Redo this activity if they feel the need to recount.</p>
K.NS.B.7	<p>Count aloud the objects in the tray.</p> <p>Build towers of blocks from 1 to 20 by following this pattern and place a number card under each tower.</p>  <p>Possible questions for students: What do you notice? What do you wonder? How do the towers change? As you add a block, what happens? Why?</p>	<p>Provide the student with a tray containing an unknown number of objects. Observe the student to see if the count sequence the student gives is in successive order.</p> <p>Students need time to develop an understanding of "one more". Allow them to continue this activity over several days and with various manipulatives until they begin to share that a student with one amount can have one more than another, e.g., John has three cookies, but Jen has one more.</p> <p>Discuss: "How many cubes are in tower 3? How many more cubes are in tower 4?" This can be done with any number. Do until students make the connection with 1 more.</p>
K.NS.B.8	<p>How many dots are in this 5 frame?</p> 	<p>Show students quick flashes (5 frame cards and dot dice cards) for students to efficiently recognize collections up to 5 (without counting). Student verbally names the number of items.</p>


Grade Kindergarten Mathematics

	<p>How many dots are in on this card?</p> <p>Teacher action: Alternate using dot cards like the following set.</p> 	<p>Continue working with subitizing on a regular basis. This is a daily routine that can aid with addition and subtraction as students move through kindergarten. This is also great for memory practice. Show students a dot card and then have them replicate it on their desktops with counters. Compare the original dot card to their replication.</p> <p>Subitize quantities to five in a variety of combinations. When they can identify five regularly, increase the number of dots.</p>
Code	Sample Stem	Explanation
K.NS.B.9	<p>How many items are in this set?</p> <p>Teacher action: provide student, or groups of students, a set of objects (20 or fewer), to count and verbally indicate the number of objects.</p>	<p>After the student counts the quantity in a set, have them orally state or write the amount that answers "how many?".</p>
K.NS.C.10	<p>Compare the two sets and decide which set has the most objects.</p> <p>Be ready to explain your answer.</p> <p>Teacher action: provide student, or groups of students if working in pairs, two sets of objects, to count and verbally indicate which set has the greater number of objects.</p>	<p>When given two sets of objects, the student is able to use "pairing" objects from each set to determine which set has more, which set has less, or if the sets are equal.</p> <p>Students may also count the objects in one set and count the objects in another set to determine which set has more, which set has less. or if the sets are equal.</p>
K.NS.C.11	<p>Look at the numbers below. Identify the number that is more than the other. 8 3</p> <p>Look at the numbers below. Identify the number that is less than the other. 6 9</p>	<p>Students may use ten frames and counters to show the numbers to be compared. Students are orally or in writing told which number is more or which number is less.</p> <p>When shown two numbers, student can orally or in writing tell which is more or which is less.</p>
K.NBT.A.1	How can you compose 8 and 7? Use manipulatives to support your answer.	Given a number, the student can show it in tens and ones using manipulatives, e.g., base ten blocks, ten frames with counters, snap cubes, a number bond.
	How many tens and ones are in the number 13?	Using some manipulative or mathematical structure, like a number bond, with the total known, have the student show or tell the parts in tens and ones




Grade Kindergarten Mathematics

Code	Sample Stem	Explanation
K.RA.A.1	There were 5 birds in the tree. 4 more birds joined them. How many birds are in the tree now?	When given a story context (with addition or subtraction), students can represent it with manipulatives or drawings.
	Taylor had 6 pencils. She gave 2 of them to Luke. How many pencils does Taylor have left?	
	Kaleb is trying to represent two numbers that add to 9. He used counters to make his example.  What are other ways to represent 9? You can use five frames, drawings, or other ways to show a different representation.	
	How many more counters will Kaleb need to add to get 9? 	
K.RA.A.2	In pairs, you will each draw two cards from your stack. The person with the highest sum wins that round. Teacher action: provide each student with a set of numeral cards with each student beginning with the same number of cards. Have each student place their cards in a pile, face-down in front of them.	With games like these, the teacher can observe how students solve the problem. Do they count on their fingers, count the dots or symbols on the card? Do they immediately answer and seem to "know" the sum? Is their response immediate or does it take time even though they work through it mentally? Do they need manipulatives to solve it?
K.RA.A.3	I have 10 Skittles. How many could each of my two friends get?	When given a determined number of manipulatives (the total), the student can decompose the amount in more than one way (to find the two parts). When given a number (the total), the student can decompose it in more than one way (to find the two parts). Students need to understand that amounts can be decomposed into two parts and still have the same amount.

Grade Kindergarten Mathematics

	Make a cube train of 8 using two colors. Give the number names for your two parts.	
Code	Sample Stem	Explanation
K.RA.A.4	How many dots are on this ten frame? Teacher action: provide several examples of ten frames with various numbers of dots for different rounds of this question.	When shown a quantity on a ten frame, student can name the number that when added, equals ten. When given a number, students can tell the number that when added, equals ten.
	A pack of gum has ten pieces of gum when it is full. Ramon's pack has 6 pieces. How many are missing?	
K.GM.A.1	What do you notice about the shape? How many sides does it have? How many corners (angles) do you notice? Teacher action: provide students with a 2-D or 3-D shape, e.g., a pattern block.	As students observe the shapes, chart their discoveries. Tell them that these are parts of the shape we can measure, and then discuss how they can be measured. Is there any part of the shape that can't be measured, e.g., color? Take time to discuss and explore the shapes, charting observations.
K.GM.A.2	What do you notice about the two shapes shown below?  Teacher actions: other possible questions to ask include, what is alike; what is different; do the shapes have the same number of sides; do the shapes have the same number of angles.	Encourage students to observe the shapes carefully, noting differences between the two shapes. Students who are unfamiliar with the shapes or the vocabulary used with shapes may struggle to explain what they are seeing or may be unable to draw what they see. Also, have students draw each shape and show how they are different or how they are alike. Use pattern blocks, buttons, blocks.
K.GM.B.3	How do we tell time? What tools do we use to find out what time it is?	Many students believe they can tell time because they can "read" the time on a digital display. The goal here is to begin developing understanding of clocks and telling time. Encourage students to locate clocks throughout the school.
K.GM.B.4	What is today? What is tomorrow? Do you remember what day it was yesterday?	Young students struggle with these concepts, especially yesterday and tomorrow. Reviewing yesterday, today, and tomorrow can be done daily. Talk about holidays and when they occur. What day is their birthday on?
K.GM.B.5	Tell me the difference between the look of a quarter and a penny.	After learning the attributes of coins, the student can identify a coin when shown.

Grade Kindergarten Mathematics

Code	Sample Stem	Explanation
K.GM.C.6	Find a triangle in the classroom. Teacher actions: use other shapes, e.g., a rectangle, point to a circle, play "I spy a (name a shape)" and encourage students to find it. How many can they locate?	Take students on a shape walk. Find shapes outside near the building. If you journal, give them an opportunity to draw something they have seen in their journal. Find shapes in the building. Encourage them to look at patterns on the floor, on the walls.
K.GM.C.7	Use the design below and put an x under the design.  Teacher actions: provide students with a simple design or this design to place an x under the design. Other options for students to do include putting a circle over the design, draw a check mark on top of, over, under, beside, next to, on, over.	These activities may include color and shapes. For example, put a green x under the picture. Children will have difficulty following directions if they do not recognize and respond to these words. They may also experience frustration collecting materials when oral directions are given.
K.GM.C.8	Sort these shapes into those with 3 corners and those with more than 3 corners. 	Encourage students to use the attributes they have explored to sort shapes with like attributes. Use mathematical language in conjunction with the more common words the students use to encourage the familiarity of more formal terms but do not expect students to use them at this time.
K.GM.C.9	Draw this shape. 	Students could also model a given 2-D shape using clay or play dough or other manipulatives.
K.GM.C.10	Using pattern blocks, how many ways can you put these two triangles together to form a new shape?	
K.DS.A.1	Put the given set of objects into like categories. How many objects are in each category? Teacher action: provide students with a set of objects like attribute blocks, buttons, or leaves for student use.	Given a set of objects that can be classified by category (such as attribute blocks, buttons, leaves, etc.) student puts the items into like categories and gives a accurate count for each category.
K.DS.A.2	Using your two categories from before, how many more red shapes do you have than blue shapes? Teacher action: adjust question to match or fit the given object sets you provide students.	Use this activity in conjunction with the one for K.DS.A.1. This links well so after students classify items by category, they can make comparison statements regarding the count of the different categories, i.e., there are more buttons with 4 holes than 2 holes, there are fewer red shapes than blue shapes.